

REMARKS

Reconsideration and allowance of the above-identified application are requested in view of the foregoing Amendments to the Claims and the following remarks.

35 U.S.C. § 102(b) Claim Rejection (Claims 1, 14, 35, and 36).

Applicant, as pointed out by the Examiner, does admit that the dietary fiber gel element of the instant invention is the dietary fiber gel described and claimed by Inglett in United States Patent No. 5,766,662. Applicant also respectfully points out that the production of this dietary fiber gel is not within the scope of the instant application. Rather, Applicant merely refers to the Inglett dietary fiber gel to identify one element of the present invention.

On Page 2 of the Office Action Dated August 2, 2005, the Examiner states:

Applicant admits that Inglett is used as the dietary fiber gel of the claims at page 2 of the specification and in his arguments in the last office action. Inglett discloses, at column 1, lines 30-33, that it is known in the art that wheat bran is a rich source of cellulose. Wheat bran is one of the suggested fibers of the claims at column 3, lines 6-7. The treatment of the fibers of examples 2 & 3 would result in the production of hydrolyzed cellulose.

The present invention is not directed to the production of hydrolyzed cellulose. Rather, the present invention discloses and claims a composition of matter comprising hydrolyzed cellulose, and more specifically, the non-caloric amorphous insoluble cellulosic dietary fiber gel as fully described by Inglett.

Anticipation depends upon prior publication of the invention. *35 U.S.C. § 102(b)*. The establishment of anticipation requires that every element and limitation of the claimed invention can be found in a single prior publication. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Applicants traverse the rejection because nothing in Inglett teaches all the elements and limitations of the Applicants' claimed invention.

It is unclear to the Applicant how the Examiner's remarks support an assertion of anticipation by Inglett. Inglett neither suggests nor discloses emulsified liquid shortening compositions comprising dietary fiber gel, water and lipid. The present application is narrowly directed to emulsified liquid shortening compositions comprising dietary fiber gel, water and lipid. Although the dietary fiber gel used in the instant invention is the dietary fiber gel disclosed by Inglett, Inglett does not teach the use of this gel in emulsified liquid shortening compositions.

The Applicants traverse the rejection of Claims 1, 14, 35, and 36 as being anticipated under 35 U.S.C. § 102 (b) because Inglett does not disclose the unique compositions of matter claimed in Claims 1, 14, 35, and 36, but rather Inglett discloses only the dietary fiber gel without its combination with lipid and water in an emulsified liquid shortening composition.

35 U.S.C. § 102(b) Claim Rejection (Claims 1, 35, and 36).

Applicants have requested amendments to all base Claims, namely Claims 1, 14 and 27, to clearly define the dietary fiber gel as being insoluble fiber. These amendments are mere clarifications to the claim language, neither narrowing nor expanding the scope thereof. It is clear from the specification as originally filed that the dietary fiber referenced in all claims is the dietary fiber taught by the Inglett patent because no other dietary fiber gel is identified in the specification as being a part of the instant invention. In view of these amendments, Applicants request re-consideration by the Examiner of the following arguments.

The Applicants properly traverse the rejection of Claims 1, 35, and 36 as anticipated under 35 U.S.C. § 102 (b) because the Young et al reference cited in the Examiner's Office Action teaches fat substitutes comprising two components, a gelatinous aqueous phase and a lipid phase. The gelatinous aqueous phase is a gelatin formed from water and konjac, a soluble fiber. The Applicant's invention on the other hand discloses an emulsified liquid shortening comprising insoluble dietary fiber in the form of a gel, water and a lipid.

There is nothing disclosed in Young et al that anticipates the Applicants' invention as suggested by the Examiner. Anticipation depends upon prior publication of the invention. 35 U.S.C. § 102(b). The establishment of anticipation requires that every element and limitation of the claimed invention can be found in a single prior publication. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Applicants traverse the rejection because nothing in Young et al teaches all the elements and limitations of the Applicants' claimed invention.

Young et al teach shortening substitutes that comprises two components, an aqueous phase and a lipid phase. The aqueous phase is a gelatin formed from water and konjac. Konjac is derived from the tubers of a plant known as elephant yam, and is a polymer of glucose and mannose, i.e. a polysaccharide. Because polysaccharides are generally known to be water

soluble, Young et al implicitly teaches konjac is a soluble fiber. Separately, Stone (U.S. Patent No. 6,391,864) explicitly teaches that konjac is a soluble dietary fiber. Thus, Young et al teach shortening substitutes that comprise an aqueous phase and a lipid phase, wherein the aqueous phase comprises water and a soluble dietary fiber that form a gelatin. The applicant's invention on the other hand teaches an emulsified liquid shortening that comprises insoluble dietary fiber gel, water, and lipid. Nothing in the cited prior art reference teaches the claimed invention, emulsified liquid shortening comprising insoluble dietary fiber gel, water, and lipid.

For example, Young et al at Col. 3, lines 7-12, teach "a shortening substitute . . . that has an aqueous phase containing water and konjac . . . and a lipid phase." In light of Stone, which teaches at Col. 2., line 28 that "[k]onjac . . . is a soluble dietary fiber," clearly Young et al teach shortening substitutes that comprise soluble dietary fiber and not insoluble dietary fiber.

Further, fiber is a chemically complex and chemically diverse substance that is available from a variety of natural plant sources such as wood pulp, tubers from specific plants such as elephant yam, and agricultural by-products such as seed brans, hulls, and so forth. Raw fiber is typically a solid that can be processed to produce a wide variety of products. One skilled in the art would know fiber products depend on the fiber source and the processing. While Young et al teach fiber produced by grinding and washing elephant yam plant tubers, the dietary fiber gel disclosed in the Applicant's application comes from the alkaline treatment of agricultural by-products.

For example, Young et al at Col. 4, lines 32-41, teaches konjac, a soluble fiber, "is naturally derived material . . . obtained from the tuber of the plant *Amorphophallus konjac* (elephant yam). The . . . tubers are ground . . . [and] recovered as konjac powder or flour . . . [that] has typically been washed, e.g., with water and/or alcohol." Clearly, Young et al teach shortening substitutes comprising fiber derived from the grinding and washing elephant yam tubers, and not insoluble dietary fiber derived from the alkaline treatment of agricultural by-products.

Finally, the Examiner points out the Young et al teach a lipid phase "that may be any fat or oil" which arguably includes the oil and fats of the lipid of the Applicant's invention. Although the lipid taught by Young et al is arguably similar to the lipid taught by the Applicant, Young et al does not anticipate the Applicant's invention because Young et al combine the lipid

with a gelatinous aqueous phase containing soluble fiber while the Applicant's invention combines the lipid with an insoluble dietary fiber.

35 U.S.C. § 103 Claim Rejection (Claims 1-4, and 27-36).

Applicants have requested amendments to all base Claims, namely Claims 1, 14 and 27, to clearly define the dietary fiber gel as being insoluble fiber. These amendments are mere clarifications to the claim language, neither narrowing nor expanding the scope thereof. It is clear from the specification as originally filed that the dietary fiber referenced in all claims is the dietary fiber taught by the Inglett patent because no other dietary fiber gel is identified in the specification as being a part of the instant invention. In view of these amendments, Applicants request re-consideration by the Examiner of the following arguments.

The Applicants properly traverse the rejection of Claims 1-4, and 27-36 as obvious under 35 U.S.C. § 103 (a) because Young et al, as cited in the Examiner's Office Action, teach shortening substitutes that comprise two components, an aqueous phase and a lipid phase, wherein the aqueous phase is a gelatin formed from water and a soluble fiber, konjac. The Applicant's invention on the other hand discloses an emulsified shortening comprising insoluble dietary fiber gel, water and lipid.

The References Do Not Teach the Claimed Invention

There is nothing disclosed in Young et al that teaches the modification of the references suggested by the Examiner. Obviousness depends on the differences between a claimed invention and the prior art. 35 U.S.C. § 103(a). The establishment of obviousness requires that the prior art must teach or suggest all the limitations of the claimed invention. *In re Royka*, 490 F.2d 981, 984-85 (CCPA 1974). The Applicant traverses the rejection because nothing in Young et al teaches all the elements and limitations of the Applicant's claimed invention.

Young et al teach shortening substitutes that comprise two components, an aqueous phase and a lipid phase. The aqueous phase is a gelatin formed from water and konjac. Konjac is derived from the tubers of a plant known as elephant yam, and is a polymer of glucose and mannose, i.e. a polysaccharide. Because polysaccharides are generally known to be water soluble, Young et al implicitly teaches konjac is a soluble fiber. Separately, Stone (U.S. Patent No. 6,391,864) explicitly teaches that konjac is a soluble dietary fiber. Thus, the Young et al

teach shortening substitutes that comprise an aqueous phase and a lipid phase, wherein the aqueous phase comprises water and a soluble dietary fiber that form a gelatin. The applicant's invention on the other hand teaches an emulsified liquid shortening that comprises insoluble dietary fiber, water, and lipid. Nothing in the cited prior art reference teaches the claimed invention, emulsified liquid shortening comprising insoluble dietary fiber gel, water, and lipid.

For example and as noted by the Examiner, Young et al at Col. 3, lines 7-12, teach "a shortening substitute . . . that has an aqueous phase containing water and konjac . . . and a lipid phase." In light of Stone, which teaches at Col. 2., line 28 that "[k]onjac . . . is a soluble dietary fiber," clearly the combined references teach shortening substitutes that comprise soluble dietary fiber and not insoluble dietary fiber.

Further, fiber is a chemically complex and chemically diverse substance that is available from a variety of natural plant sources such as wood pulp, tubers from specific plants such as elephant yam, and agricultural by-products such as seed brans, hulls, and so forth. Raw fiber is typically a solid that can be processed to produce a wide variety of products. One skilled in the art would know fiber products depend on the fiber source and the processing. While Young et al teach fiber produced by grinding and washing elephant yam plant tubers, the dietary fiber gel disclosed in the Applicant's application comes from the alkaline treatment of agricultural by-products.

For example, Young et al at Col. 4, lines 32-41, teaches konjac, a soluble fiber, "is naturally derived material . . . obtained from the tuber of the plant *Amorphophallus konjac* (elephant yam). The . . . tubers are ground . . . [and] recovered as konjac powder or flour . . . [that] has typically been washed, e.g., with water and/or alcohol." Clearly, Young et al teach shortening substitutes comprising fiber derived from the grinding and washing elephant yam tubers, and not insoluble dietary fiber derived from the alkaline treatment of agricultural by-products.

The Examiner also points out the Young et al teach a lipid phase "that may be any fat or oil" which arguably includes the oil and fats of the lipid of the Applicant's invention. Although the lipid taught by Young et al is arguably similar to the lipid taught by the Applicant, Young et al does not anticipate the Applicant's invention because Young et al combine the lipid with a gelatinous aqueous phase containing soluble fiber while the Applicant's invention combines the lipid with an insoluble dietary fiber.

The Reference Lacks Any Suggestion for Modification

There is nothing disclosed in Young et al that teaches the modification of the references suggested by the Examiner. Obviousness requires that the suggestion to make the claimed invention must found in the prior art. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). Such a suggestion is lacking in the cited reference. Even if the references fully taught the Applicants' invention, the Applicants traverse the rejection because nothing in Young et al affirmatively suggests making the cited combination.

Young et al teaches shortening substitutes comprising an aqueous phase and a lipid phase, wherein the aqueous phase is a gelatin formed from water and a soluble fiber, konjac. The Applicant's invention on the other hand teaches a shortening substitute comprising dietary fiber gel, water, and lipid. The dietary fiber gel includes insoluble dietary fiber that is dispersed in water, but does not dissolve in water to form an aqueous phase. Nothing in Young et al teaches or suggests shortening substitutes comprising insoluble fiber that forms dispersions.

For example at Col. 3, line 65 to Col. 4, line 3, Young et al teach that "shortening substitutive . . . have an aqueous phase containing konjac . . . and a lipid phase." At Col. 4, lines 25-26, Young et al specifically point out that "the presence of konjac as a gelling agent in the aqueous phase of the emulsion." When discussing water-in-oil emulsions Young et al at Col. 9, lines 23-27, point out that "the aqueous phase is dispersed throughout the continuous oil phase, preferably as small gelled droplets . . . i.e., the konjac-containing aqueous phase." Further, Stone at Col. 2, lines 27-31, points out that "[k]onjac flour is a soluble dietary fiber that . . . is typically used as a . . . gelling agent." Clearly, Young et al and Stone teach a water soluble fiber that dissolved in to form gelatin type aqueous phase, and do not teach or suggest the dispersion of an insoluble dietary fiber to form a gel.

The Reference Lacks Any Reasonable Expectation of Success

There is nothing disclosed in Young et al that teaches a reasonable expectation of success in combining the references as suggested by the Examiner. Obviousness exists when the references provide a reasonable expectation of success for the proposed combination. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097-98 (Fed. Cir. 1986). Determining whether the combination is obvious or unobvious requires consideration of all the evidence and resultant

findings. *In re Rinehart*, 531 F.2d 1048, 1052 (CCPA 1976). Such an expectation of success is lacking in the cited reference. Even if the references fully taught the Applicants' invention, the Applicants traverse the rejection because nothing in Young et al leads to an expectation of success for the identified combination.

Young et al teaches a very specific soluble fiber compound derived from the grinding and washing of the tuber from a specific plant, *Amorphophallus konjac*, while the dietary fiber disclosed in the Applicant's application comes from the alkaline treatment of agricultural by-products. Fiber, which is naturally produced by plants, is a chemically complex and chemically diverse substance that is available from a variety of sources such as wood pulp, plant tubers, and agricultural by-products such as seed brans, hulls, and so forth. Raw fiber is typically a solid that can be processed to produce a wide variety of products. One skilled in the art would know that fiber products, such as dietary fiber gels, depend on the fiber source and the processing.

The Applicants' invention claims an emulsified liquid shortening, a shortening substitute, comprising dietary fiber gel derived from agricultural by-products grains such as seed brans, hulls, and so forth. The specification, as amended, discloses that the dietary fiber gel in the Applicant's invention comprises insoluble dietary fiber derived from the alkaline treatment of agricultural by-products. Nothing in the cited references teach any expectation that an insoluble fiber derived from the alkaline processing of agricultural by-products can be used in a shortening substitute formulation based on the very specific soluble fiber derived from the tuber of a specific plant known as *Amorphophallus konjac*.

For example, Young et al at Col. 4, lines 32-41, teaches konjac, a soluble fiber, "is naturally derived material . . . obtained from the tuber of the plant *Amorphophallus konjac* (elephant yam). The . . . tubers are ground . . . [and] recovered as konjac powder or flour . . . [that] has typically been washed, e.g., with water and/or alcohol." Clearly, Young et al does not teach any expectation that dietary fiber gel derived from the alkaline treatment of agricultural by-products that substantially disrupts cellular structure can be successfully used in a formulation of a shortening substitute that comprises a gelled aqueous phase having a gelling agent that is a soluble fiber derived for the tuber of a very specific plant, *Amorphophallus konjac*.

Further, the Examiner argues that there is no unobvious or unexpected result for a method of producing an emulsified liquid shortening from dietary fiber gel, water, and lipid that utilizes "micro-particulation" which arguably includes homogenization. Although

emulsification of other aqueous gelatinous phases that contain soluble fibers besides konjac, such as xanthan gum, sodium alginate, carrageenan, guar gum, and so forth including fiber modifications that function as soluble fiber, and a lipid phase may be obvious in light of Young et al, nothing in Young et al teaches that emulsification of insoluble dietary fiber, water, and lipid by micro-particulation is an obvious and expected result. At Col. 4, lines 5-6, Young et al teach the use of soluble fiber as a gelling agent to formation of a gelatinous aqueous phase, and does not teach the dispersion of insoluble dietary fiber. Clearly, Young et al does not teach or provide any expectation that gels that are dispersions of insoluble dietary fiber can be emulsified with water and lipid as provided in Claim 27 of the Applicant's application.

35 U.S.C. § 102 Claim Rejection (Claims 1-4).

Applicants have requested amendments to all base Claims, namely Claims 1, 14 and 27, to clearly define the dietary fiber gel as being insoluble fiber. These amendments are mere clarifications to the claim language, neither narrowing nor expanding the scope thereof. It is clear from the specification as originally filed that the dietary fiber referenced in all claims is the dietary fiber taught by the Inglett patent because no other dietary fiber gel is identified in the specification as being a part of the instant invention. In view of these amendments, Applicants request consideration by the Examiner of the following arguments in lieu of previously expounded arguments.

The Applicants traverse the rejection of Claims 1-4 as anticipated under 35 U.S.C. § 102 (b) because the Cox et al reference cited in the Examiner's Office Action teaches fat substitutes comprising cross-linked plasma, lipid, and gum. It is well known in the art that gums are categorically soluble. The Applicant's invention on the other hand discloses an emulsified liquid shortening, a fat substitute, comprising insoluble dietary fiber gel, water and a lipid.

There is nothing disclosed in Cox et al that anticipates the Applicants' invention as suggested by the Examiner. Anticipation depends upon prior publication of the invention. 35 U.S.C. § 102(b). The establishment of anticipation requires that every element and limitation of the claimed invention can be found in a single prior publication. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Applicants traverse the rejection

because nothing in Cox et al teaches all the elements and limitations of the Applicants' claimed invention.

Cox et al teach fat substitutes that comprise chemically cross-linked enzymatically-denatured blood plasma, lipids, and binder such as settable vegetable gum. The applicant's invention on the other hand teaches an emulsified liquid shortening, a fat substitute that comprises insoluble dietary fiber gel, water, and lipid. Nothing in the cited prior art reference teaches the claimed invention, emulsified liquid shortening comprising insoluble dietary fiber gel, water, and lipid.

For example, Cox et al at Col. 4, lines 11-19, teach a fat substitute that includes "plasma" that is "cross-linked with vegetable gums and decholesterolized, low cholesterol, and cholesterol free oil and fats." At Col. 4, lines 43-47, Cox et al also explain that plasma or "blood protein/vegetable gum (saccharide) fraction[, which is arguably a form of fiber,] . . . can be formulated as [cross-linked] gels." Cox et al at Col. 6, lines 42-49, teach that the fat substitute can incorporate a "binder; e.g., a settable vegetable gum such as sodium alginate," which is soluble fiber.

Although the Examiner points out similarities between the gum and fat or oil taught by Cox et al and the fiber and lipid of the Applicant's invention, Cox et al clearly do not teach the use of insoluble dietary fiber gel as a possible embodiment of their invention. Cox et al teach fat substitutes that comprise soluble fiber compounds, i.e. gums and not an emulsified of insoluble dietary fiber gel, water, and lipid.

35 U.S.C. § 103 Claim Rejection (Claims 1-4, 35, and 36).

Applicants have requested amendments to all base Claims, namely Claims 1, 14 and 27, to clearly define the dietary fiber gel as being insoluble fiber. These amendments are mere clarifications to the claim language, neither narrowing nor expanding the scope thereof. It is clear from the specification as originally filed that the dietary fiber referenced in all claims is the dietary fiber taught by the Inglett patent because no other dietary fiber gel is identified in the specification as being a part of the instant invention. In view of these amendments, Applicants request consideration by the Examiner of the following arguments in lieu of previously expounded arguments.

The Applicant traverses the rejection of Claims 1-4, 35, and 36 as obvious under 35 U.S.C. § 103 (a) because Cox et al, as cited in the Examiner's Office Action, teach fat substitutes that comprise chemically cross-linked plasma, fiber, and lipid. The Applicant's invention on the other hand discloses emulsified liquid shortening, a fat substitute, comprising insoluble dietary fiber gel, water, and lipid.

The References Do Not Teach the Claimed Invention

There is nothing disclosed in Cox et al that teaches the modification of the references suggested by the Examiner. Obviousness depends on the differences between a claimed invention and the prior art. 35 U.S.C. § 103(a). The establishment of obviousness requires that the prior art must teach or suggest all the limitations of the claimed invention. *In re Royka*, 490 F.2d 981, 984-85 (CCPA 1974). The Applicant traverses the rejection because nothing in Cox et al teaches all the elements and limitations of the Applicant's claimed invention.

Cox et al teach fat substitutes that comprise chemically cross-linked enzymatically denatured blood plasma, lipids, and binder such as settable vegetable gum. The applicant's invention on the other hand teaches an emulsified liquid shortening, a fat substitute that comprises insoluble dietary fiber gel, water, and lipid. Nothing in the cited prior art reference teaches the claimed invention, emulsified liquid shortening comprising insoluble dietary fiber gel, water, and lipid.

For example, Cox et al at Col. 4, lines 11-19, teach a fat substitute that includes "plasma" that is "cross-linked with vegetable gums and decholesterolized, low cholesterol, and cholesterol free oil and fats." At Col. 4, lines 43-47, Cox et al also explain that plasma or "blood protein/vegetable gum (saccharide) fraction. . . can be formulated as [cross-linked] gels." "After homogenization, the plasma-based mixture is treated in a manner which will cause the mixture to form a gel,". Cox et al at Col. 6, lines 42-49, teach that the fat substitute can incorporate a cross-linkable "binder; e.g., a settable vegetable gum such as sodium alginate," which is soluble fiber.

Although the Examiner points out similarities between the gum and fat or oil taught by Cox et al and the fiber and lipid of the Applicant's invention, Cox et al clearly do not teach the use of insoluble dietary fiber gel as a possible embodiment of their invention. Cox et al teach fat

substitutes that comprise soluble fiber compounds, i.e. gums and not an emulsified of insoluble dietary fiber gel, water, and lipid.

The Reference Lacks Any Suggestion for Modification

There is nothing disclosed in Cox et al that teaches the modification of the references suggested by the Examiner. Obviousness requires that the suggestion to make the claimed invention must found in the prior art. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). Such a suggestion is lacking in the cited reference. Even if the references fully taught the Applicant's invention, the Applicant traverses the rejection because nothing in Cox et al affirmatively suggests making the cited combination.

Cox et al teach fat substitutes that comprise chemically cross-linked enzymatically denatured blood plasma, lipids, and binder such as settable vegetable gum. The applicant's invention on the other hand teaches an emulsified liquid shortening, a fat substitute that comprises insoluble dietary fiber gel, water, and lipid. Nothing in the cited prior art reference teaches the claimed invention, emulsified liquid shortening comprising insoluble dietary fiber gel, water, and lipid.

For example, Cox et al at Col. 4, lines 11-19, teach a fat substitute that includes "plasma" that is "cross-linked with vegetable gums and decholesterolized, low cholesterol, and cholesterol free oil and fats." At Col. 4, lines 43-47, Cox et al also explain that plasma or "blood protein/vegetable gum (saccharide) fraction. . . can be formulated as [cross-linked] gels." "After homogenization, the plasma-based mixture is treated in a manner which will cause the mixture to form a gel,". Cox et al at Col. 6, lines 42-49, teach that the fat substitute can incorporate a cross-linkable "binder; e.g., a settable vegetable gum such as sodium alginate," which is soluble fiber.

Although the Examiner points out similarities between the gum and fat or oil taught by Cox et al and the fiber and lipid of the Applicant's invention, Cox et al clearly do not suggest the use of insoluble dietary fiber gel as a possible embodiment of their invention. Cox et al teach fat substitutes that comprise soluble fiber compounds, i.e. gums, and not an emulsified of insoluble dietary fiber gel, water, and lipid.

Finally, the Applicant's invention includes methods directed to making fat substitutes through the physical emulsification of insoluble dietary fiber gel, water, and lipid, and optionally

other ingredients such as soluble fiber. In this regard, Claim 35 is directed to fat substitutes made from methods that include only physical mixing or emulsification of insoluble dietary fiber gel, water, and lipid, while Claim 36 includes an additional ingredient, soluble fiber, in the fat substitutes. In either case, the Applicant's invention claims fat substitutes that comprise insoluble fiber, as defined in the Inglett patent, while Cox et al simply do not contemplate the use of insoluble fiber.

The Reference Lacks Any Reasonable Expectation of Success

There is nothing disclosed in Cox et al that teaches a reasonable expectation of success in combining the references as suggested by the Examiner. Obviousness exists when the references provide a reasonable expectation of success for the proposed combination. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097-98 (Fed. Cir. 1986). Consideration of whether the combination is obvious or unobvious requires consideration of all the evidence and resultant findings. *In re Rinehart*, 531 F.2d 1048, 1052 (CCPA 1976). Such an expectation of success is lacking in the cited reference. Even if the reference fully taught the Applicants invention, the Applicant traverses the rejection because nothing in Cox et al leads to an expectation of success for the identified combination.

It is well known in the art that insoluble fiber has very different properties and attributes than soluble fiber, including gums. There is nothing contained in the Cox reference to suggest a reasonable expectation of success where insoluble fiber is substituted for gum. Cox et al simply make no reference whatsoever to insoluble dietary fiber, let alone suggest a reasonable expectation for success were insoluble fiber to be used in place of soluble fiber. In fact, the characteristics particular to insoluble fiber render it a quite unobvious choice to be used in lieu of gums, and other soluble fibers generally.

35 U.S.C. § 102(b) Claim Rejection (Claims 1, 35, and 36).

Applicants have requested amendments to all base Claims, namely Claims 1, 14 and 27, to clearly define the dietary fiber gel as being insoluble fiber. These amendments are mere clarifications to the claim language, neither narrowing nor expanding the scope thereof. It is clear from the specification as originally filed that the dietary fiber referenced in all claims is the dietary fiber taught by the Inglett patent because no other dietary fiber gel is identified in the

specification as being a part of the instant invention. In view of these amendments, Applicants request consideration by the Examiner of the following arguments in lieu of previously expounded arguments.

The Applicants traverse the rejection of Claims 1, 35, and 36 as anticipated under 35 U.S.C. § 102 (b) because the Jenkins et al reference cited in the Examiner's Office Action teaches fat substitutes comprising thermally stable gelatins made by chemically reacting soluble dietary fiber and a specific hydrocolloid, typically a gum, also a soluble fiber as discussed *supra*. The Applicant's invention on the other hand discloses an emulsified liquid shortening, a fat substitute, comprising an emulsified mixture of insoluble dietary fiber gel, water and a lipid.

There is nothing disclosed in Jenkins et al that anticipates the Applicants' invention as suggested by the Examiner. Anticipation depends upon prior publication of the invention. 35 U.S.C. § 102(b). The establishment of anticipation requires that every element and limitation of the claimed invention can be found in a single prior publication. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Applicants traverse the rejection because Jenkins et al does not teach all the elements and limitations of the Applicants' claimed invention.

Jenkins et al teach fat substitutes that comprise chemically reacted soluble dietary fiber and gums or hydrocolloids that form thermally stable gelatins when mixed with water. Gums and hydrocolloids are well known in the art to be soluble. Further, Jenkins et al specifically teach rejection of insoluble dietary fiber from the composition. The applicant's invention on the other hand teaches an emulsified liquid shortening, a fat substitute that comprises gel of insoluble dietary fiber, water, and lipid. Nothing in the cited prior art reference teaches the claimed invention, emulsified liquid shortening comprising insoluble dietary fiber gel, water, and lipid.

For example, Jenkins et al at Col. 1, line 66 to Col. 2, line 2 teach "blending soluble dietary fiber . . . with a hydrocolloid" that are "capable of forming" (by reacting) "a thermo-irreversible gel," i.e., heat stable gelatin. In Col. 2-3, Jenkins et al explain that the soluble dietary fiber is produced from fiber containing agricultural products that undergo enzymatic hydrolysis. It is important to note that Jenkins et al at Col. 3, lines 22-27, teach that "[a]fter the enzyme has been inactivated, the soluble fraction comprising the soluble dietary fiber . . . is separated from the insoluble residue," which would necessarily include any insoluble dietary

fiber. Further, at Col. 3, lines 30-32, Jenkins et al point out that “[u]nder these condition of separation, the levels of lipids . . . in the [soluble] dietary fiber products are significantly reduced.” Thus, Jenkins et al implicitly teach the removal of insoluble dietary fiber and lipids from fat substitutes. Finally, at Col. 4, lines 1-10, Jenkins et al teach “water soluble dietary fiber . . . and . . . hydrocolloid . . . [or] gum” are blended together in water and then cooled overnight so that “the gel is set.” One skilled in the art would know that setting of the gel would imply a chemical reaction of the soluble dietary fiber and the hydrocolloid. Clearly, Jenkins et al teach fat substitutes that comprise thermally stable gels formed by chemically reacting soluble dietary fiber and gum, another soluble fiber, to make a material that is not an emulsified mixture of insoluble dietary fiber gel, water, and lipid.

Claim Objection.

Claims 5-13, 15-26 and 37 were objected to as being dependent from rejected claims. Applicant believes the foregoing arguments that traverse the rejections of the independent claims from which Claims 5-13, 15-26 and 37 depend obviate the objections.

Applicant has amended the claims to clarify the foregoing distinctions. Although the claims have been amended so as to more reasonably define the scope of the invention, and more specifically dietary fiber gel to one skilled in the art, the amendments to the claims are expressly supported by the specification. In view of the amendments to the claims, and above arguments, Applicant respectfully requests that the rejection of Claims 1, 14, 35, and 36 as being anticipated by Inglett under 35 U.S.C. § 102(b) be withdrawn; Claims 1, 35 and 36 as being anticipated by Young et al under 35 U.S.C. § 102 (b) be withdrawn; that the rejection of Claims 1-4, and 27-36 as being obvious in view of Young et al under 35 U.S.C. § 103(a) be withdrawn; that the rejection of Claims 1-4 as being anticipated by Cox et al under 35 U.S.C. § 102 (b) be withdrawn; that the rejection of Claims 1-4, 35, and 36 as being obvious in view of Cox et al under 35 U.S.C. § 103(a) be withdrawn; and that the rejection of Claims 1, 35, and 36 as being anticipated by Jenkins et al under 35 U.S.C. § 103(b) be withdrawn; and that the objections to Claims 5-13, 15-26 and 27 as being dependent upon rejected base claims be withdrawn.

The fat substitutes as in the cited references, Young et al, Cox et al, and Jenkins et al, are functionally different from the Applicant's invention. In the cited reference, fat substitution is

through the use of a gelled aqueous phase or gelatin that is formed through the use of a soluble fiber as a gelling agent or soluble fiber that is reacted with another compound such as gum or protein so as to impart additional desired characteristic to the gelatin such as structural integrity, thermal stability, and so forth. In the Applicant's invention the fat substitute is a composition of matter comprising insoluble dietary fiber. Applicant's use of an insoluble fiber derived fat substitute is not taught in the mentioned references.

The cited fat substitutes of Young et al, Cox et al, and Jenkins et al comprise compounds that are different from the Applicant's invention, such that the Applicant's fat substitute is a compound that differs from the cited fat substitutes. In Young et al, Cox et al, and Jenkins et al, the fat substitutes do not comprise insoluble dietary fiber. However, the Applicant's fat substitute comprises an insoluble dietary fiber such that the Applicant's fat substitute is a different compound than taught in the cited reference. Because the Applicant's fat substitute is a different compound than known shortenings or fat substitutes, the formulation of emulsified liquid shortening, and the resulting solids content can differ from known fat substitutes depending on the desired taste, flavor, and texture such that the use of any known formulation would be unobvious.

Applicant believes that the amended patent application is now in condition for allowance. Accordingly, the Applicant respectfully requests that a Notice of Allowance be issued in this case. The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes this would advance the prosecution of the matter.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Timothy J. Fullin', with a stylized, cursive script.

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